



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

April 20, 2022

Mark Gelin
Manager, International Registrations
ISK Biosciences Corporation
7470 Auburn Road, Suite A
Concord, OH 44077

Subject: PRIA Label Amendment – Add aerial application for uses on corn, cotton, fallow, soybean, and wheat, change crop rotational and preplant intervals for cotton and soybean, and other label edits
Product Name: Tiafenacil 339SC Herbicide
EPA Registration Number: 71512-37
Application Date: June 9, 2021
Decision Number: 576476

Dear Mark Gelin:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Endia Blunt by phone at 202-566-2505, or via email at blunt.endia@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Mindy Ondish".

Mindy Ondish
Product Manager 23
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

TIAFENACIL

GROUP

14

HERBICIDE

TIAFENACIL 339SC HERBICIDE

A nonselective burndown herbicide with the active ingredient TERGEO[®]

ACTIVE INGREDIENT: TIAFENACIL *	30.0 %
OTHER INGREDIENTS	70.0 %
TOTAL	100.0 %

*methyl *N*-[2-[[2-chloro-5-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2*H*)-pyrimidinyl]-4-fluorophenyl]thio]-1-oxopropyl]-β-alaninate

ACCEPTED
04/20/2022

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 71512-37

Tiafenacil 339SC is formulated as a suspension concentrate (SC) and contains 2.83 pounds of active ingredient per gallon of formulated product (339 grams per liter).

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand this label, find someone to explain it to you in detail.)

SEE [BELOW] [LABEL BOOKLET] [INSIDE BOOKLET] [BACK PANEL] [SIDE PANEL] FOR [FIRST AID] [AND]
[ADDITIONAL] [PRECAUTIONARY STATEMENTS] [AND] [DIRECTIONS FOR USE] [INCLUDING STORAGE
AND DISPOSAL]

READ ENTIRE LABEL CAREFULLY AND USE ONLY AS DIRECTED.

EPA Reg. No. 71512-37

EPA Est. No.

Net Contents:

ISK Biosciences Corporation
7470 Auburn Road, Suite A
Concord, Ohio 44077

PRECAUTIONARY STATEMENTS

Hazard to Humans and Domestic Animals

CAUTION: Harmful if swallowed or absorbed through skin. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

FIRST AID	
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER	
For 24-Hour Medical Emergency Assistance call National Poison Control Center at 1-800-222-1222. [For Chemical Emergency , Spill, Leak, Fire or Accident, call CHEMTREC 1-800-424-9300.]	

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: waterproof gloves, long-sleeved shirt and long pants, and shoes plus socks.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.607(d-f)), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Requirements

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

USERS SHOULD:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to estuarine/marine invertebrates. Do not apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

Ground Water Advisory

Tiafenacil has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory

Tiafenacil may impact surface water due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This chemical is classified as having high potential for reaching surface water via runoff for several days after application. A level, well-maintained vegetative buffer strip between areas to which this chemical is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of this chemical from runoff water and sediment. Runoff of this chemical will be reduced by avoiding application when rainfall is forecast to occur within 48 hours.

PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow coming into contact with oxidizing agent. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at time of herbicide application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the Restricted Entry Interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:
Coveralls, waterproof gloves, and shoes plus socks.

Tiafenacil 339SC must be used only in accordance with directions on this label. To the extent consistent with applicable law, ISK Biosciences Corporation will not be responsible for losses or damage resulting from use of this product in any manner not specifically directed by ISK Biosciences.

PRODUCT INFORMATION

Rainfastness:

Tiafenacil 339SC is rainfast 1 hour after application.

Weed Efficacy Information:

Postemergence Activity. Tiafenacil 339SC is a nonselective contact/foliar (burndown) herbicide used to control or suppress a broad spectrum of emerged broadleaf and grass weeds. Tiafenacil 339SC has excellent burndown activity on most young (generally less than 5 inches tall) annual weeds and suppresses the growth of perennial weeds by desiccating green foliage.

- Tiafenacil 339SC must be applied with an adjuvant for optimum burndown activity (refer to '**Adjuvants**' section for details).
- It is essential to obtain complete coverage of target weeds for adequate weed control. Inadequate coverage of target weeds, improper application technique, and/or application to mature, large (taller than 5 inches), stressed, or mown weeds will usually result in unacceptable weed control.
- Burndown activity may be slowed or reduced under cloudy and/or foggy or cooler weather conditions, or when weeds are growing under drought or other stress conditions.

Residual Activity. Tiafenacil 339SC rapidly degrades following application and as a result, Tiafenacil 339SC has no residual activity against weeds.

Mode of Action (MOA) Information:

Tiafenacil 339SC is classified as a Group 14 herbicide and is rapidly absorbed by emerged, actively growing, and susceptible green plant tissue. Once Tiafenacil 339SC is absorbed by green plant tissue, inhibition of protoporphyrinogen oxidase (PPO) results in rapid disintegration and drying of plant tissue. Chlorosis and necrotic symptoms usually develop within hours after application and death of susceptible weeds occurs within a few days.

Crop Tolerance Information:

Crops listed on this label are tolerant to Tiafenacil 339SC when applied according to the labeled directions and under normal environmental conditions.

- Crop injury may occur under stressful growing conditions.
- Crop injury will occur if Tiafenacil 339SC is applied postemergence (over the top) to the crop.
- In fields where poor row closure (during planting) and/or soil cracking is common, applicators should be watchful for cases where the crop emergence within the open planting row or within soil cracks. If Tiafenacil 339SC is applied when the crop has emerged within open planting rows or within soil cracks (between the soil walls), Tiafenacil 339SC will likely contact and injure the crop.
- In postemergence-directed (perennial crop) uses, Tiafenacil 339SC will cause crop injury if the spray solution drifts into the crop canopy.

Rotational Crop Information:

Table 1 indicates the interval between application of Tiafenacil 339 SC and planting of rotational crops or replanting after crop failures. In case of tank mix, use the most restrictive interval of all products applied.

Table 1 Rotational crop and replanting intervals by Tiafenacil 339SC application rate

Crop	Tiafenacil 339 SC Rate (fl oz/A)		
	1	2	3
	Rotational Crop Interval		
	(Days after application)		
Corn	0	0	0
Wheat	0	0	0
Soybean	0 - 7*	7*	7*
Cotton	7	14	14
Sugarbeet	30	30	60
Other crops	120	150	180
* The replanting interval for Soybean and rates are further defined in the Soybean section.			

PRODUCT USES & APPLICATION INSTRUCTIONS:

Tiafenacil 339SC is registered for 1) preplant and preemergence burndown use in corn (all types, except sweet corn and popcorn), and wheat, 2) preplant use in soybean, and cotton 3) directed-postemergence burndown use in grape, 4) postemergence burndown use in fallow and noncrop areas (described in Noncrop Areas section of the Use Instructions), and/or for 5) crop harvest aid/desiccation/ defoliation use in cotton.

Restrictions

- DO NOT apply this product to residential areas.
- DO NOT apply this product through any type of irrigation system.
- For any combination of cropping systems, DO NOT apply more than a maximum cumulative amount of 0.223 lb ai per acre per year.
- A 25 foot buffer for ground applications and a 150 foot buffer for aerial applications must be maintained between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (including grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, shrub lands, crop lands), semi-aquatic, and estuarine/marine habitats.

Spray Carrier:

Spray carrier selection is very important to maximize effectiveness of Tiafenacil 339SC. Always use clean water (no mud or clay), clear liquid nitrogen, or complete clear liquid fertilizers with Tiafenacil 339SC. Fertilizers or water containing clay can reduce the efficacy of Tiafenacil 339SC. It is important, therefore, to never use muddy water or suspension type fertilizers containing clay as the spray carrier. Use the higher rate of Tiafenacil 339SC and appropriate adjuvant when the spray carrier is a clear liquid fertilizer containing high levels of phosphate. Always use a Methylated Seed Oil (MSO) when using liquid fertilizers such as 28% N as a spray carrier. Liquid fertilizer carriers cannot substitute for the appropriate adjuvant. When mixing Tiafenacil 339SC in liquid fertilizer carrier, always perform a jar test with all desired products to be in the tank at the appropriate ratios.

Spray Volume – Ground Application:

The minimum spray volume for ground applications of Tiafenacil 339SC is 10 gallons of final spray solution per acre. Adequate spray coverage is essential for optimal weed control. When targeting dense weed populations and/or larger weeds, and/or no-till fields where crop stubble/stover is present, use higher spray volumes (e.g. 15 to 20 gallons of final spray solution per acre).

Spray Volume – Aerial Application:

The minimum spray volume for aerial applications of Tiafenacil 339SC is 3 or more gallons of final spray solution per acre. Adequate spray coverage is essential for optimal weed control. When applying for desiccation or targeting dense weed populations and/or larger weeds, use a minimum of 5 of final spray solution per acre.

Application Timing and Rates:

For Tiafenacil 339SC application timing and rates, see instructions listed for each use.

Table 2. Broadleaf and grass weeds controlled (C) or suppressed (S) by applications of Tiafenacil 339SC applied to actively growing weeds at 2.0 to 3.0 fl oz per acre or at 1.0 to 3.0 fl oz per acre in tank mix with glyphosate.

	Common Name	Scientific Name	Tiafenacil 339SC	Tiafenacil 339SC + glyphosate ¹
Broadleaf Weeds	Chickweed spp.	<i>Caryophyllaceae spp.</i>	S	C
	Lambsquarters, common	<i>Chenopodium album</i>	C	C
	Ragweed, common	<i>Ambrosia artemisiifolia</i>	C	C
	Ragweed, giant	<i>Ambrosia trifida</i>	C	C
	Dandelion	<i>Taraxacum officinale</i>	S	C
	Hemp sesbania	<i>Sesbania herbacea</i>	C	C
	Henbit, common	<i>Lamium amplexicaule</i>	C	C
	Horseweed	<i>Erigeron canadensis</i>	S	S-C
	Prickly sida	<i>Sida spinosa</i>	C	C
	Shepherd's-purse	<i>Capsella bursa-pastoris</i>	C	C
	Velvetleaf	<i>Abutilon theophrasti</i>	C	C
	Waterhemp	<i>Amaranthus tuberculatus</i>	S-C	S-C
Grass Weeds	Annual bluegrass	<i>Poa annua</i>	S-C	C
	Barnyardgrass	<i>Echinochloa crus-galli</i>	S	C
	Crabgrass spp.	<i>Digitaria spp.</i>	S	C
	Giant foxtail	<i>Setaria faberi</i>	S	C
	Johnsongrass	<i>Sorghum halepense</i>	C	C
	Shattercane	<i>Sorghum bicolor</i>	S	C
	Wild oats	<i>Avena fatua</i>	C	C
	Volunteer corn	<i>Zea mais</i>	C	C

¹Refer to tank mixture section for details. Rating based on glyphosate – susceptible populations.

Adjuvants:

For best results, use a methylated seed oil (MSO) when applying Tiafenacil 339SC, or reduced performance can occur. When using an MSO, always use a product that contains modified vegetable oil with at least 15% surfactant emulsifier. MSO should be applied at a concentration equal to 1% v/v (1 gallon per 100 gallons spray carrier) of the final spray volume.

If using a crop oil concentrate (COC), always use a product that contains at least 80% high quality petroleum (mineral).

If a nonionic surfactant (NIS) is used, reduced performance can occur. If using an NIS, always use NIS containing at least 60% NIS, at a concentration equal to 0.25% v/v (2 pints per 100 gallons spray volume) of the final spray volume.

The addition of an ammonium nitrogen fertilizer, either a 28% or 32% N urea ammonium nitrate (UAN) or a spray grade ammonium sulfate (AMS), to the final spray solution is allowed. If UAN or AMS is added to the spray mixture, add UAN at a concentration of 2.5% v/v (2.5 gallons per 100 gallons or spray volume) and add AMS at a concentration of 8.5 lbs product per 100 gallons of the final spray volume.

Adjuvant Mixtures – Combinations of adjuvant products may be used at doses that are relative to the adjuvant recommendations above. It is the user's responsibility to understand whether or not the adjuvant mixture quality is equal to or better than the addition of MSO/COC, NIS, and/or fertilizer at the recommended rates above.

Tank Mixture Information:

Read and follow all label directions for each tank mixture herbicide. It is the pesticide user's responsibility to ensure that all tank mixture products are registered for the intended use. Read and follow the applicable restrictions, limitations, and directions for use on all product labels involved in the tank mixture. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

For tank mixtures, add individual components to the spray tank in the following sequence: water, dry formulated products, liquid formulated products (except in the case of glyphosate or glufosinate which should be added after liquid fertilizer or ammonium sulfate is dispersed), fertilizer (dry and/or liquid), and then adjuvants.

Tiafenacil 339SC is generally compatible with fertilizers and micronutrient products, provided sufficient free water is available for dispersion of all the tank mixture products. Use tank mixture combinations only when applicator experience indicates that the tank mixture will not result in objectionable crop injury. However, the physical compatibility of Tiafenacil 339SC with tank mix partners should be evaluated before use (see compatibility test instructions).

Tiafenacil 339SC plus Glyphosate

To improve burndown and broaden the postemergence efficacy, add glyphosate to the tank mixture with Tiafenacil 339SC. Tiafenacil 339SC can be applied at 1 to 3 fl oz per acre (0.023 to 0.067 lb ai per acre) in combination with glyphosate. Follow glyphosate label rate and use directions (or follow local extension recommendations).

Compatibility Test

Additives and tank mixtures should be tested for compatibility by mixing in a small container (jar test) prior to mixing in spray tank.

In a glass jar (~1 quart size), add all mix partners, in their relative proportions. Invert, shake or mix the jar thoroughly. If mixture forms precipitates (flakes or sludge), gels, balls up or forms oily films or layers, this indicates incompatibility. Though signs of incompatibility will typically be seen within 5 minutes of mixing, mixture should be observed for approximately 30 minutes.

Compatibility agents can be used to facilitate mixing. Add ¼ teaspoon of the compatibility agent to the mix (assuming a mixing rate of 2 pints compatibility agent per 100 gallons spray mix). If compatibility agents do not facilitate mixing, the mixture is incompatible and should not be used.

Sprayer Mixing:

Mixing and Loading Instructions. Prepare no more spray mixture than is needed for the immediate application and avoid overnight storage of Tiafenacil 339SC in spray mixtures.

1. Ensure the spray system is free of residues from previous applications.
2. Fill the tank 1/2 full of clean water.
3. Turn on the tank agitation system.
4. Add the required amount of Tiafenacil 339SC and continue agitation until the Tiafenacil 339SC is completely dispersed.
5. As the tank is filling, add the required spray adjuvants.

Agitation should be maintained during mixing and application.

Sprayer Calibration

Equipment must be calibrated regularly according to manufacturer's specifications. Review and follow restrictions from the spray drift management section.

Spray Tank Cleaning

Clean application equipment thoroughly by using a strong detergent or commercial spray cleaner according to the manufacture's direction, followed by triple rinsing the equipment before and after applying this product.

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications:

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 10 mph at the application site. The boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.

- Do not apply during temperature inversions.

Ground Boom Applications:

- Do not release spray at a height greater than 3 feet above the ground or crop canopy.
- Applicators are required to select the nozzles and pressure that deliver medium or coarser droplets (ASABE S572).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Ground Boom-less Applications:

- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplet size (ASABE S572) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

WIND

Drift potential generally increases with wind speed.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Ground Boom-less Applications:

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

PRODUCT STEWARDSHIP INFORMATION

Resistance Management

Tiafenacil 339SC herbicide is a Group 14 herbicide that inhibits the protoporphyrinogen oxidase (PPO) enzyme in plants. Any weed population may contain or develop plants naturally resistant to Tiafenacil 339SC and to several herbicide modes of action (triazine (Group 5), ALS (Group 2), PPO (Group 14), glyphosate (Group 9), auxin (Group 4), HPPD (Group 27) and etc.). The repeated use of herbicides with the same modes of action allow resistant weeds to be selected and spread.

To help delay the development and spread of resistance to PPO inhibitors (Group 14) and other mode of actions take one or more of the following steps:

- Rotate the use of Tiafenacil 339SC or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.

- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species.
- If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.
- If a weed population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact [ISK Biosciences at 1-877-706-4640].

Always apply the full labeled rate and at the specified application timing listed on the label. Contact your local sales representative, crop advisor, or extension agent to determine if there is suspected PPO resistant weeds in your region. If PPO resistant biotypes of target weeds have been reported, use the specified application rates of this product for your conditions and add tank mix products so that there are multiple effective mechanisms of actions for each target weed.

To manage a known herbicide resistant weed population, it is important to use herbicides with varying effective modes of action as tank mix partners, in sequential applications within a growing season, and/or in a multi-year weed management plan.

Integrated Pest Management (IPM)

Tiafenacil 339SC herbicide should be used as part of an integrated pest management strategy. Consult with local university extension and agricultural professionals for IPM strategies specific for your area.

CROP – SPECIFIC USE INSTRUCTIONS

Corn (All Types, Except Sweet Corn and Popcorn)

The maximum single application rate is 3 fl oz per acre (0.067 lb ai per acre). Do not exceed 6 fl oz per acre per year (0.134 lb ai per acre per year).

Application Timing	Rate Range (fl oz/A)	Additional Information & Restrictions
Preplant Burndown	1 to 3	<ul style="list-style-type: none"> • Apply as a broadcast spray using conventional low-pressure ground spray equipment or by aerial application. • Follow manufacturer's recommendations for spraying pressure. • Review and follow restrictions from the spray drift management section. • Do not reapply within 14 days. • Use higher rate for dense and/or mature weed infestations.
Preemergence Burndown	1 to 3	<ul style="list-style-type: none"> • Apply as a broadcast spray using conventional low-pressure ground spray equipment or by aerial application. • Follow manufacturer's recommendations for spraying pressure. • Review and follow restrictions from the spray drift management section. • Do not reapply within 14 days. • Use higher rate for dense and/or mature weed infestations.

Cotton Preplant Application

The maximum preplant application rate is 3 fl oz per acre (0.067 lb ai per acre). Do not exceed a maximum cumulative amount of 6 fl oz per acre per year (0.134 lb ai per acre per year) for all uses on cotton.

Application Timing	Rate Range (fl oz/A)	Additional Information & Restrictions
Preplant Burndown	1 to 3	<ul style="list-style-type: none"> • Apply as a broadcast spray using conventional low-pressure ground spray equipment or by aerial application. • Follow manufacturer's recommendations for spraying pressure.

		<ul style="list-style-type: none"> • Review and follow restrictions from the spray drift management section. • Do not apply less than 7 days between application and planting at the 1 fl oz/A rate. • Do not apply less than 14 days between application and planting at the 2 - 3 fl oz/A rate. • Use higher rate for dense and/or mature weed infestations. • Do not apply more than once per crop season.
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Cotton Harvest Aid / Desiccation / Defoliation

The maximum single application rate is 3 fl oz per acre (0.067 lb ai per acre). Do not exceed a maximum cumulative amount of 6 fl oz per acre per year (0.134 lb ai per acre per year) for all uses on cotton.

Application Timing	Rate Range (fl oz/A)	Additional Information & Restrictions
Postemergence	1 to 3	<ul style="list-style-type: none"> • Apply a broadcast spray using conventional low-pressure ground spray equipment or by aerial application. • Follow manufacturer's recommendations for spraying pressure. • Review and follow restrictions from the spray drift management section. • Do not apply within 10 days of harvest. • Do not reapply within 7 days. • Inadequate coverage of foliage will result in unacceptable crop desiccation/defoliation.
<p>Apply over the top of cotton when crop reaches physiological maturity (according to local/state extension service guidelines - such as nodes above cracked boll, accumulated heat units after cutout, or at least 60% to 70% boll opening). Allow up to 10 days for optimum desiccation/defoliation effect. Time to harvest may vary based on environmental and atmospheric conditions compared to period stated here. Larger plant size, dense canopy, and environmental conditions not conducive for desiccation may require a second application 7 days later.</p>		

Fallow

The maximum single application rate is 3 fl oz per acre (0.067 lb ai per acre). Do not exceed 9 fl oz per acre per year (0.2 lb ai per acre per year).

Application Timing	Rate Range (fl oz/A)	Additional Information & Restrictions
Fallow period between crop harvest and next crop planting	1 to 3	<ul style="list-style-type: none"> • Apply as a broadcast spray using conventional low-pressure ground spray equipment or by aerial application. • Follow manufacturer's recommendations for spraying pressure.

		<ul style="list-style-type: none"> • Review and follow restrictions from the spray drift management section. • Do not reapply within 14 days. • Use higher rate for dense and/or mature weed infestations.
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Grape

The maximum single application rate is 3 fl oz per acre (0.067 lb ai per acre). Do not exceed 9 fl oz per acre per year (0.2 lb ai per acre per year).

Application Timing	Rate Range (fl oz/A)	Additional Information & Restrictions
Postemergence (Directed)	1 to 3	<ul style="list-style-type: none"> • Apply as a directed spray using conventional low-pressure ground spray equipment. • Do not apply by aerial application. • Follow manufacturer's recommendations for spraying pressure. • Review crop tolerance information section. • Review and follow restrictions from the spray drift management section. • Do not allow spray solution to contact green stems (except suckers) or foliage. • Do not apply to grapes established less than 2 years. • Do not reapply within 14 days. • Do not apply within 7 days of harvest. • Use higher rate for dense and/or mature weed infestations. • Always apply product with an effective tank mixture partner, if electing to use the low rate.

Noncrop Areas

Do not use in residential areas.

Do not apply using handheld equipment.

For use in the non-selective burndown of vegetation on farms including: implement storage yards, fence rows, on-farm roadsides or laneways, barnyards, and windbreaks.

The maximum single application rate is 3 fl oz per acre (0.067 lb ai per acre). Do not exceed 9 fl oz per acre per year (0.2 lb ai per acre per year).

Application Timing	Rate Range (fl oz/A)	Additional Information & Restrictions
For best efficacy apply after weeds have emerged but before weeds have reached maturity.	1 to 3	<ul style="list-style-type: none"> • Apply as a broadcast spray using conventional low-pressure ground spray equipment mounted to a tractor or all-terrain vehicle (ATV). • Do not apply by aerial application.

		<ul style="list-style-type: none"> • Follow manufacturer's recommendations for spraying pressure. • Review and follow restrictions from the spray drift management section. • Do not reapply within 14 days. • Use higher rate for dense and/or mature weed infestations.
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Soybean

The maximum single application rate is 3 fl oz per acre (0.067 lb ai per acre). Do not exceed 6 fl oz per acre per year (0.134 lb ai per acre per year).

Application Timing	Rate Range (fl oz/A)	Additional Information & Restrictions
Preplant Burndown	1 to 3	<ul style="list-style-type: none"> • Apply as a broadcast spray using conventional low-pressure ground spray equipment or by aerial application. • Follow manufacturer's recommendations for spraying pressure. • Review and follow restrictions from the spray drift management section. • Do not reapply within 14 days. • Use higher rate for dense and/or mature weed infestations. • Refer to the Table 3 below for the minimum preplant application timing.

Table 3. Minimum Soybean Preplant Application Timing

Rate (fl oz/A)	Minimum interval required between application and planting (days)	
	Coarse and Sandy Clay Loam Soils¹ OR Soils with ≤ 2% Organic Matter	All Other Soils
1.0	7	0
1.5	7	0
2.0	7	7
3.0	7	7

Wheat

The maximum single application rate is 3 fl oz per acre (0.067 lb ai per acre). Do not exceed 6 fl oz per acre per year (0.134 lb ai per acre per year).

Application Timing	Rate Range (fl oz/A)	Additional Information & Restrictions
Preplant Burndown	1 to 3	<ul style="list-style-type: none">• Apply as a broadcast spray using conventional low-pressure ground spray equipment or by aerial application.• Follow manufacturer's recommendations for spraying pressure.• Review and follow restrictions from the spray drift management section.• Do not reapply within 14 days.• Use higher rate for dense and/or mature weed infestations.
Preemergence Burndown	1 to 3	<ul style="list-style-type: none">• Apply as a broadcast spray using conventional low-pressure ground spray equipment or by aerial application.• Follow manufacturer's recommendations for spraying pressure.• Review and follow restrictions from the spray drift management section.• Do not reapply within 14 days.• Use higher rate for dense and/or mature weed infestations.

STORAGE AND DISPOSAL

Pesticide Storage: Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place.

Pesticide Disposal: Do not contaminate water, food, or feed by disposal. Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: [if product is in non-refillable container (equal to or less than 5 gallons)] Non-refillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or other procedures approved by State and local authorities.

[if product is in non-refillable container (greater than 5 gallons)] Nonrefillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Recap and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or other procedures approved by State and local authorities.

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[Optional Alternate Warranty]

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[NOTES TO REVIEWER:]

[Any text found in brackets “[”]” is optional on container label.]

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